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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stephen C. Kaufman			EXAMINER	
Intellectual Property Law Dept.			PRICE, NATHAN E	
IBM Corporation				
P.O. Box 218			ART UNIT	PAPER NUMBER
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SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/620,631	ARIDOR ET AL.
	Examiner Nathan Price	Art Unit 2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 January 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. This Office Action is in response to communications received 03 January 2007. Claims 1 – 24 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Response to Arguments

2. Applicant's arguments filed 03 January 2007 have been fully considered but they are not persuasive.
3. Regarding rejections under 35 U.S.C. 101, Applicant argues claim 1 now recites statutory subject matter. Examiner respectfully disagrees. The framework as claimed does not include server hardware or a console. It appears that the server can be software. Furthermore, the framework appears to receive input via the console, but the framework does not appear to include the console. Claim 22 appears to recite the data structure and objects as descriptive matter. See MPEP 2106.01.
4. Response to arguments regarding rejections under 35 U.S.C. 103 begins with arguments directed towards claim 1.
5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., updates via plug-ins, REMARKS page 13 ¶ 5; use of a new type of plug-in, REMARKS page 14 ¶ 3; and other arguments) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. Additionally, Carlson teaches different complexes providing different services [col. 2 lines 6 – 28]. Carlson also teaches generic framework managing multiple complexes via a plug-in and teaches plug-ins used to communicate with other systems [col. 10 lines 7 – 19; col. 11 lines 13 – 42].

7. Regarding claim 2, the information relating to the type and other data seems to be interpreted differently by Applicant. The references teach information relating to the recited data, if not the specific data, for the reasons presented in the rejection.

8. Regarding claim 3, the user interface controls the administrative tool, which configures components of the plug-in and the plug-in provides the interface for a generic management framework [col. 10 lines 7 – 19; col. 11 lines 13 – 42].

9. Applicant arguments regarding claims 4 – 6 do not appear to address limitations added by claims 4 – 6.

10. Claims 7 and 8 were rejected with the combination of Carlson and Choquier.

The citation appears to be directed towards Choquier (as assumed by Applicant, REMARKS, page 17 ¶ 7) to teach the limitations of claims 7 and 8. However, the combination, as introduced in the rejection of claim 1, does not appear to be argued.

11. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

12. Regarding claims 9 and 10, Carlson combined with Choquier teaches plug-ins used to control adding and removing servers [Carlson: col. 4 lines 21 – 38; col. 11 lines 28 – 42] [Choquier: col. 7 lines 53 – 62].

13. See the current rejections for further explanation, including arguments not specifically addressed.

Claim Objections

14. Although other claims are rejected under 35 U.S.C. 101, claim 24 is not currently rejected under 35 U.S.C. 101. However, the claim is objected to because it could be written to more clearly indicate that it is directed towards statutory subject matter.

Specifically, the computer program product comprises a computer useable medium with computer readable program code. The claim could be more clearly directed towards statutory subject matter if it specified that the medium was a computer readable medium storing the computer program code. Although Applicant's REMARKS (page 10) indicate such an amendment, the amendment does not appear to have been included in amended claim 24.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 1 – 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what interface is referenced by "the interface" in line 12 of claim 1. Claims 2 – 21 inherit the deficiencies of claim 1.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 1 – 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of claims 1 - 21 raises the

question as to whether or not the claims can be implemented in software alone, making the claims software, *per se*. It appears that the claims can be implemented in software alone and do not include hardware to realize the functionality of the software. Claims 22 and 23 appear to recite the data structure and objects as descriptive matter. See MPEP 2106.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 1 - 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (US 6,697,849 B1) in view of Choquier et al. (US Patent 5,951,694; hereinafter Choquier).

18. As to claim 1, Carlson teaches a computer-implemented framework for managing application complexes, each application complex comprising multiple tiers of servers [Figs. 2 A - C], where servers in a common tier run an identical application and all the servers work together to provide a specific service, said application complex being definable via an application complex type, said framework being operated by a

management server [col. 4 lines 21 - 58; col. 2 lines 19 - 28; col. 3 lines 38 - 51; col. 9 lines 10 - 55] and comprising:

a plug-in interface adapted for connection to the framework of a plug-in in respect of each application complex type, wherein said plug-in encapsulates a relationship between disparate resources composing the respective application complex type and respective characteristics of said resources [Fig. 4; col. 3 lines 38 - 51; col. 10 lines 7 - 32], and

a user interface coupled to the management server and operating under control of the interface for providing general tasks that are independent of operational semantics of the application complex and that is responsive to user operations for interfacing with the framework for defining an instance of the application complex [col. 2 lines 19- 34; col. 4 lines 21 -38; col. 13 lines 23-29].

The tiers correspond to clusters in a given tier [col. 1 lines 22 - 25; col. 3 lines 33 - 38] (and service groups in Choquier [col. 7 lines 44 - 52]). Although Carlson indicates that users can control the system it does not specifically state that a user populates the application complex with servers. However, Choquier teaches allowing the user to populate the application complex with servers using input to said framework via a console [col. 7 lines 44 - 62]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because Carlson discloses adding servers to clusters [col. 4 lines 34 - 36] without providing details on how servers are added and Choquier discloses allocating additional servers

to service groups [col. 7 lines 53 - 62]. It is also noted that Choquier teaches running the same service application on servers of a group [col. 7 lines 44 - 52].

As to claims 2 - 21, the combination of Carlson and Choquier (citations refer to Carlson unless otherwise indicated) teaches that:

[claim 2] the plug-in is adapted to convey to the framework information relating to the type of the application complex, the number of tiers, the application which the servers in each tier should run, and one or more properties of the application complex whose values can be specified by the user for each instance of the application complex type [Figs. 11 and 14; col. 15 lines 29 - 47]. For type of complex and number of tiers, Fig. 11 shows a server in a hierarchy, including identifiers that indicate types [col. 6 lines 32 - 33]. Since application servers are part of a tier in the system [Fig. 2 A- C] and are shown in the partial tree [col. 6 lines 32 - 33], it would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to include the tiers (where the servers are located) in the higher levels of the tree. By listing the elements of the system, including tiers, it shows how many tiers exist.

The combination of Carlson and Choquier also teaches that:

[claim 3] the plug-in is responsive to a change in one or more properties of the application complex for configuring at least one of said servers in accordance with said change [col. 4 lines 1 -38; col. 13 lines 23 -41];

[claim 4] the plug-in is adapted to convey to the framework information relating to one or more properties of the application complex whose values are to be monitored by the plug-in and the plug-in is adapted to monitor said properties and return their

respective values or functions thereof to the framework [col. 11 lines 12 - 42; col. 12 lines 6 - 26];

[claims 5 and 6] the plug-in monitors said properties automatically or in response to a request by the framework [col. 7 lines 53 - 62];

[claims 7 and 8] the plug-in is responsive to a new server being added to (claim 7), or a server being removed from (claim 8), a tier in the application complex for automatically (re)configuring said server and any other servers in the application complex that relate to said server [Choquier: col. 7 lines 53 - 62; col. 11 line 58 - col. 12 line 7];

[claim 9] the plug-in is adapted to request the framework for a new server [col. 4 lines 33 - 38] [Choquier: col. 7 lines 53 - 62; col. 11 line 58 - col. 12 line 7];

[claim 10] the plug-in is adapted to request the framework to remove a server that belongs to the application complex [Choquier: col. 7 lines 53 - 62; col. 11 line 58 - col. 12 line 7];

[claim 11] the user interface is configured to allow a user to change one or more properties of any application complex instance created by the user [col. 12 lines 6 - 33] [Choquier: col. 7 lines 53 - 62];

[claim 12] the user interface is configured to display properties of any application complex instance created by the user and to allow one or more properties thereof to be changed [Fig. 14; col. 15 lines 29 - 36];

[claim 13] the user interface is a graphical user interface [Fig. 14];

[claim 14] the user interface is adapted to display current instances of application complexes and servers currently included in each tier thereof [Fig. 11; col. 13 lines 22 - 41; see also the rejection of claim 2];

[claims 15 and 16] the user interface is adapted to allow the user to move a server from a free pool of servers into (claim 15), or remove a server from (claim 16), a tier of an application complex instance, and the framework is responsive thereto for identifying the plug-in corresponding to said application complex instance for requesting said plug-in to reconfigure the server and any other servers in the application complex instance that relate to said server according to the properties of the application complex instance [col. 10 lines 7 -32; col. 12 lines 6- 26] [Choquier: col. 11 line 58 -col. 12 line 7; col. 23 lines 36 - 48];

[claim 17] the user interface is adapted to allow the user to move a server from a tier of a first application complex instance to a tier of a second application complex instance that is different from the first application complex instance, the respective tier in each of said instances having an identical class [Choquier: col. 7 lines 53 - 62; col. 9 line 35 - col. 10 line 21; col. 23 lines 36 - 48], and the framework is responsive thereto for:

identifying the plug-in corresponding to said first application complex instance for requesting said plug-in to reconfigure the server and any other servers in the first application complex instance that relate to said server according to the properties of the first application complex instance, the plug-in being responsive to said server being removed from the tier in the first application complex for automatically

configuring said server and any other servers in the first application complex that relate to said server [col. 10 lines 7 - 32] [Choquier: col. 11 line 58 - col. 12 line 7; col. 23 lines 36 - 48]; and

identifying the plug-in corresponding to said second application complex instance for requesting said plug-in to reconfigure the server and any other servers in the second application complex instance that relate to said server according to the properties of the second application complex instance, the plug-in being responsive to said server being added to a tier in the second application complex for automatically configuring said server and any other servers in the second application complex that relate to said server [col. 10 lines 7 -32] [Choquier: col. 11 line 58 - col. 12 line 7; col. 23 lines 36 - 48].

[claim 18] the user interface is adapted to allow the user to move a server from a first tier of an application complex instance to a second tier thereof (Although moving between tiers in a single complex is not specifically stated, Carlson teaches that web servers can make use of local data or application servers [col. 7 line 60 - col. 8 line 7]. Therefore, depending on the requests being received [col. 7 lines 60 - 63], the load of the two tiers can vary and justify reallocating servers as taught by Choquier [col. 23 lines 36 - 48]), said first and second tiers having an identical class [Choquier: col. 9 line 35 - col. 10 line 21], and the framework is responsive thereto for:

identifying the plug-in corresponding to said application complex instance for requesting said plug-in to reconfigure the server and any other servers in the first tier and in the second tier of the application complex instance that relate to said server

according to the properties of the application complex instance, the plug-in being responsive to said server being removed from the first tier and added to the second tier for automatically configuring said server and any other servers in the application complex that relate to said server [col. 10 lines 7 -32; col. 12 lines 6- 26] [Choquier: col. 7 lines 53 - 62; col. 9 line 35 - col. 10 line 21; col. 23 lines 36 - 48].

[claims 19 - 21] the user interface is adapted to display the monitored values for each of the monitored properties of any application complex instance created by the user and to interact with the plug-in corresponding to each application complex instance to receive the monitored values [col. 13 lines 22 -41] [Choquier: col. 24 lines 4- 12].

As to claims 22 - 24, see the rejection of claim 1. The disclosure of Carlson includes object-oriented programming [col. 8 lines 51 - 63].

Conclusion

19. The prior art made of record on the P.T.O. 892 that has not been relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:30am - 3:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP



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SUPERVISORY PATENT EXAMINER